

| Ref # | Hits | Search Query   | DBs                                 | Default Operator | Plurals | Time Stamp       |
|-------|------|--|-------------------------------------|------------------|---------|------------------|
| S1    | 278  | (148/415-418.ccls. or 420/534,535,537,548,549.ccls.) and (si or silicon) and (cu or copper) and (ni or nickel) and (fe or iron) and (ti or titanium)                       | US-PPGPUB; USPAT; EPO; JPO; DERWENT | OR               | OFF     | 2005/08/04 15:13 |
| S2    | 360  | (c22c021/02.ipc. or c22c021/04.ipc.) and (si or silicon) and (cu or copper) and (ni or nickel) and (fe or iron) and (ti or titanium)                                       | US-PPGPUB; USPAT; EPO; JPO; DERWENT | OR               | OFF     | 2005/08/04 15:10 |
| S4    | 147  | (S1 S2) and piston   | US-PPGPUB; USPAT; EPO; JPO; DERWENT | OR               | ON      | 2005/08/04 17:58 |
| S5    | 122  | (148/415-418.ccls. or 420/534,535,537,548,549.ccls.) and (si or silicon) and (cu or copper) and (ni or nickel) and (fe or iron) and (ti or titanium) and (phosphorus or P) | US-PPGPUB; USPAT; EPO; JPO; DERWENT | OR               | OFF     | 2005/08/04 15:13 |
| S6    | 28   | S5 and (v or vanadium or zr or zirconium) and (ca or calcium)  | US-PPGPUB; USPAT; EPO; JPO; DERWENT | OR               | OFF     | 2005/08/04 16:55 |
| S7    | 99   | S5 and (v or vanadium or zr or zirconium)  | US-PPGPUB; USPAT; EPO; JPO; DERWENT | OR               | OFF     | 2005/08/04 17:26 |
| S8    | 71   | S7 not S6  | US-PPGPUB; USPAT; EPO; JPO; DERWENT | OR               | OFF     | 2005/08/04 16:55 |
| S10   | 169  | S2 and (v or vanadium or zr or zirconium)  | EPO; JPO; DERWENT                   | OR               | OFF     | 2005/08/04 17:27 |
| S11   | 169  | S10 not (S6 S7)  | US-PPGPUB; USPAT; EPO; JPO; DERWENT | OR               | OFF     | 2005/08/04 17:27 |
| S13   | 5    | ( "6921512" "5996471" "5484492" "5217546" "5853508" "4434014").pn. and piston  | USPAT                               | OR               | ON      | 2005/08/04 18:53 |
| S14   | 1    | "5484492".pn:  | USPAT                               | OR               | ON      | 2005/08/04 18:54 |

inventorship searched ✓